CONTENTS OF VOLUME 28

NUMBER 1

Feature Articles

Variation and systematic relationships of the San Pedro Mártir whiptail lizard (*Cnemidophorus martyris* Stejneger) (Teiidae). *J. Martin Walker* 1

Reproduction in an upper elevation population of *Cnemidophorus inornatus* (Reptilia, Teiidae). *Timothy P. Stevens* 9

Nest architecture and population of the honey ant, *Myrmecocystus mexicanus* Wesmael (Formicidae), in Colorado. *John R. Conway* 21

Feeding ecology of a southwestern cyprinid fish, the spikedace, *Meda fulgida* Girard. *Willard E. Barber* and *W. L. Minckley* 33

Quantification of competition among coexisting heteromyids in the southwest. *Cliff Lemen* and *Patricia Waring Freeman* 41

Population changes in a Mediterranean scrub rodent assembly during drought. *Teryl A. Spevak* 47

Biogeographic relationships of pocket gophers in southeastern Colorado. *Michael P. Moulton, Jerry R. Choate,* and *Steven J. Bissell* 53

Nesting activities of northern mockingbirds in northern Louisiana. *Linda L. Means* and *John W. Goertz* 61

Mericarp micromorphology of Great Plains *Scutellaria* (Labiatae). *Thomas M. Lane* 71

Woody riparian vegetation patterns on a segment of the Mimbres river in southwestern New Mexico. *Patrick H. Boles* and *William A. Dick-Peddie* 81

Mesquite age and size in relation to dunes and artifacts. *Jimi S. Graham Gadzia* and *John A. Ludwig* 89

Notes

Additional records of black-footed ferrets in Wyoming. *Stephen J. Martin* 95

Southwestern pine-tip moth: notes on larval descent behavior, predators, and associated shoot borer in northern Arizona. *H. Randy Lawson, Larry A. Yost,* and *Daniel T. Jennings.* 95

Gemsbok (*Oryx gazella*) in White Sands National Monument. *William H. Reid* and *Gail R. Patrick* 97

Northeastern extension of the breeding range of the elf owl in New Mexico. *Peter B. Stacey, Rossetta D. Arrigo, Thomas C. Edwards,* and *Nancy Joste* 99

A new record of *Caecidotea steevesi* (Isopoda: Asellidae) from Arkansas. *Mark D. Schram* 100

Notes on burrowing owl (*Athene cunicularia*) food habits in Oklahoma. *Jack D. Tyler* 100

Additions to the Texas marine ichthyofauna, with notes on the Rio Grande estuary. *Frank L. Pezold* and *Robert J. Edwards* 102

Past occurrence of *Acris crepitans* (Hylidae) in Arizona. *Darrel Frost* 105

Taxonomic status of the corn snake, *Elaphe guttata* (Linnaeus) (Colubridae), in Louisiana and eastern Texas. *Larry R. Raymond* and *Laurence M. Hardy* 105

Observation of badger copulatory and agonistic behavior. *Thomas M. Campbell III* and *Tim W. Clark* 107

Attributes of capture-recapture data for *Sigmodon hispidus*. *Fred S. Guthery* and *Nancy H. Herbert* 108

Decomposition rates of various quantities of buried litter in a desert. *Sandra Urbaniak* and *Walter G. Whitford* 111

Additional records of *Cordylophora lacustris* Allman, 1871 (Hydroida: Clavidae) from Texas. *G. Dan McClung* and *Jack R. Davis* 112

First nesting of a New World woodpecker in Tamarisk (*Tamarix chinensis*). *Timothy Brush* 113

Nectar amino acids in four species of *Agave* (Agavaceae). *C. Edward Freeman, William H. Reid,* and *John W. Zaun* 113

Non-equilibrium population structure in three Chihuahuan desert cacti. *William Reid, Rogelio Lozano,* and *Ross Odom* 115

An unusually high incidence of spinal deformity among threadfin shad. *Paul C. Marsh* and *William E. Rinne* 117

Leptodora kindtii (Focke) (Crustacea:Cladocera) in southern Louisiana since 1973. *John V. Conner* and *C. Fred Bryan* 118

Colorado squawfish, *Ptychocheilus lucius* (Cyprinidae), with a channel catfish, *Ictalurus punctatus* (Ictaluridae), lodged in its throat. *Charles W. McAda* 119

Southwestern cacti growing as epiphytes. *William Reid* and *Ralph Krappa* 120

Maturity and fecundity of the bluehead sucker, *Catostomus discobolus* (Catostomidae), in the upper Colorado river basin, 1975-76. *Charles W. McAda* and *Richard S. Wydoski* 120

Cover

Cover drawing of the skate *Raja texana* Chandler by *Janice D. Fechhelm*, Dept. of Wildlife and Fisheries Sciences, Texas A&M Univ.

Number 2

Feature Articles

Aquatic macroinvertebrates of the Piceance Basin, Colorado: community response along spatial and temporal gradients of environmental conditions. *Lawrence J. Gray, James V. Ward, Robert Martinson,* and *Elizabeth Bergey* 125

Ants of the Chisos Mountains, Texas (Hymenoptera: Formicidae). *Arnold Van Pelt* 137

The partitioning of flowering century plants by black-chinned and Lucifer hummingbirds. *Joseph K. Kuban, John Lawley,* and *Robert L. Neill* 143

Annual variations in patterns of reproduction of the cactus wren (*Campylorhynchus brunneicapillus*). *Thomas G. Marr* and *Ralph J. Raitt* 149

The pollination ecology of *Aquilegia micrantha* (Ranunculaceae) in Colorado. *Russell B. Miller* and *Cynthia L. Willard* 157

Status of the razorback sucker, *Xyrauchen texanus* (Abbott), in the Lower Colorado River Basin. *W. L. Minckley* 165

Seasonal analysis of aquatic invertebrates and detritus in a small mountain stream in Arizona. *Betty Dehoney* and *William S. Gaud* 189

Discrimination of coexisting species of *Peromyscus* in south-central New Mexico. *Thomas G. Thompson* and *Walt Conley* 199

Vegetation structure at Punta Cirio, Sonora, Mexico. *Juliet C. Stromberg* and *Thomas M. Krischan* 211

Microhabitat differences between *Opuntia parryi* and *O. littoralis* (Cactaceae) in the mixed chaparral-inland coastal sage association. *Richard I. Yeaton, Ellen Layendecker, Kevin S. Sly,* and *Robert Eckert* 215

Fish introductions in the American Southwest: A case history of Rogers Spring, Nevada. *Walter R. Courtenay, Jr.* and *James E. Deacon.* 221

A new distribution record for the genus *Cheiroseius* Berlese with a description of a new species from Texas (Acarina: Ascidae). *B. McDaniel* and *Eric G. Bolen* ... 225

Hopi protection of *Helianthus anomalus,* a rare sunflower. *Gary Paul Nabhan* and *Karen L. Reichhardt* 231

Notes

Notes on the reproduction of *Kinosternon subrubrum* (Testudines: Kinosternidae) in East Texas. *Timothy W. Houseal* and *John L. Carr* 237

Response of lotic periphyton to sediment release from a reservoir. *Lawrence J. Gray* and *James V. Ward* 239

Bryophytes of Huntsville State Park, Texas. *Alan J. Neumann, Ann E. Rushing, Evangelina Bazán,* and *Dale M. J. Mueller.* 239

Nutritive contents of two grasses and one browse species following rangeland burning in South Texas. *J. H. Everitt* and *H. S. Mayeux* 242

Colonization of benthic diatoms in a new farm pond and its feeder creek. *William W. Troeger* 244

Number 3

Feature Articles

A comparison of the plant communities of the South Platte and Arkansas river drainages in eastern Colorado. *Ivo E. Lindauer.* 249

Tooth replacement in king mackerel, *Scomberomorus cavalla* (Pisces: Scombridae). *Edward C. Morgan* and *William Ken King* 261

Key to the gilled salamander larvae and larviform adults of Arkansas, Kansas, Missouri, and Oklahoma. *Patric H. Ireland* and *Ronald Altig* 271

Female color change in the keeled earless lizard, *Holbrookia propinqua*: relationship to the reproductive cycle. *William E. Cooper, Jr., Caroline S. Adams,* and *James L. Dobie* 275

Autumn sightings of marine turtles (Cheloniidae) off south Texas. *Randall R. Reeves* and *Stephen Leatherwood* 281

Seed dispersal by ants in the Rocky Mountains. *Christine L. Turnbull, Andrew J. Beattie,* and *Frances M. Hanzawa* 289

Analysis of internest movement in *Formica haemorrhoidalis* Emery (Hymenoptera: Formicidae). *William MacKay* and *Emma MacKay* 295

A revision of *Samolus ebracteatus (sensu lato)* (Primulaceae). *James Henrickson.* 303

An annotated key to the dorsal guard hairs of Arkansas game mammals and furbearers. *Renn Tumlison* 315

Elevated DDE and Toxaphene residues in fishes and birds reflect local contamination in the lower Rio Grande Valley, Texas. *Donald H. White, Christine A. Mitchell, Harry D. Kennedy, Alexander J. Krynitsky,* and *Michael A. Ribick.* 325

Cooing activity and nesting of mourning doves in northeastern Colorado. *Thomas E. Olson, Clait E. Braun,* and *Ronald A. Ryder.* 335

Pattern of nocturnal activity of male *Dipodomys ordii* (Heteromyidae). *Andrew Langford.* 341

Production and nutritional attributes of tobosagrass following burning. *Carlton M. Britton* and *Allen A. Steuter.* 347

New caddisfly records of New Mexico (Insecta: Trichoptera). *R. D. Waltz* and *W. P. McCafferty.* 353

Growth rates and root:shoot ratios in seedlings of the desert shrub *Larrea tridentata. James Peter Walters* and *C. Edward Freeman.* 357

The effect of hurricane Allen on the near-shore vegetation of South Padre Island. *Frank W. Judd* and *Sammie L. Sides.* 365

Notes

The central mudminnow (*Umbra limi*) in Missouri, with an analysis of summer foods. *Christopher P. Kofron* and *A. Alan Schreiber.* 371

Karyotypes and a range extension of *Reithrodontomys* (Cricetidae: Subgenus *Aporodon*) from Mexico. *Duke S. Rogers, E. J. Heske,* and *D. A. Good.* 372

Mimon crenulatum keenani (Chiroptera: Phyllostomidae) from Belize. *Ronald G. Ruiz.* 374

First record of a Texas population of *Tilapia* (Pisces: Cichlidae). *Maurizio A. Mangini.* 374

Glaucomys volans goldmani (Rodentia: Sciuridae) in central Mexico. *Gerardo Ceballos* and *Carlos Galindo.* 376

Foods of the Texas spotted whiptail lizard (*Cnemidophorus gularis*) in New Mexico. *Troy L. Best* and *Paul J. Polechla.* 376

Pocket gophers, tanks, and plant community composition. *Wesley J. Leverich.* 378

Records of mammals from Hidalgo, Mexico. *J. Knox Jones, Jr., Dilford C. Carter,* and *Wm. David Webster.* 378

Largemouth bass *Micropterus salmoides* choking on prey. *Benny Wanjala* and *Jerry C. Tash.* 380

New fairy shrimp distribution records among collections at the California Academy of Sciences. *Denton Belk.* 380

Food selection by lesser prairie chickens in northwest Texas. *Ted B. Doerr* and *Fred S. Guthery.* 381

Defoliation of sand shinnery oak, (*Quercus havardii* Rydb.) in western Texas by *Hemileuca* sp. (Lepidoptera: Saturniidae) larvae. *James K. Wangberg* 383

In Memoriam: John Keever Greer, 1930-1980. *E. Blake Hart.* 385

Erratum. *James W. Cornett.* 386

NUMBER 4

Feature Articles

Population structure, density and movements of the Texas tortoise *Gopherus berlandieri*. *Frank W. Judd and Francis L. Rose* 387

Parasites of some fishes native to Arizona and New Mexico. *Mbida Mpoame and John N. Rinne* 399

Conkling's roadrunner—a subspecies of the California roadrunner. *Arthur H. Harris and Celinda R. Crews* 407

New caddisfly records for New Mexico (Insecta: Trichoptera). *R. D. Waltz and W. P. McCafferty* 413

Seasonal and spatial variation in the soil microarthropod fauna of the White Sands National Monument. *Perseu F. Santos and Walter G. Whitford* 417

The influence of soil biota on decomposition of plant material in a gypsum sand dune habitat. *Perseu F. Santos and Walter G. Whitford* 423

Notes on the population ecology of *Perognathus fallax* (Rodentia: Heteromyidae) in Southern California. *Leroy R. McClenaghan, Jr.* 429

Germination of mescal bean (*Sophora secundiflora*) seeds. *J. H. Everitt* 437

The taxonomic relationship between *Proboscidea louisianica* and *Proboscidea fragrans* (Martyniaceae). *P. K. Bretting* 445

The distribution of *Habenaria integra* (Nutt.) Spreng. (Orchidaceae) in Mississippi, Louisiana, and Texas. *W. C. Holmes* 451

Antiphytum hintoniorum (Boraginaceae), a bizarre new gypsophile from North-Central Mexico. *Larry Higgins and B. L. Turner* 457

Notes

On the status of the jaguar in the southwest. *David E. Brown* 459

Early breeding in bighorn sheep. *John R. Morgart and Paul R. Krausman* 460

New grass distribution records for northern Mexico. *Jesus Valdes-Reyna and Stephan L. Hatch* 461

New distribution records and physiographic associations in Texas for *Phyllozetes hypoquercus*. *E. G. Bolen, B. McDaniel and Roger Bohls* 463

Cold death of fishes at Port Aransas, Texas: January 1982. *Scott A. Holt and G. Joan Holt* 464

Pre-dispersal seed feeding insects of a desert legume, *Astragalus nutallianus*. *Harold G. Fowler and Walter G. Whitford* 466

Anurans of Vekol Valley, central Arizona. *K. Bruce Jones, Lauren Porzer Kepner, and William G. Kepner* 469

Tadpole size and predation in the Chihuahuan desert. *Bruce Woodward* 470

Reevaluation of Oklahoma records of the southern cavefish, *Typhlichthys subterraneus* Girard (Amblyopsidae). *Richard L. Mayden and Frank B. Cross* 471

Coleoptera of Sand Mountain and Blow Sand Mountains, Nevada. *R. C. Bechtel, L. M. Hanks and R. W. Rust* 473

Reproduction of the coast horned lizard, *Phrynosoma coronatum*, in Southern California. *Stephen R. Goldberg* 478

SWANEWS 481

Index to Volume 28 487